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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,301	12/31/2003	Hee-Tae Lim	0630-1900P	8430

2292 7590 12/12/2006

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EXAMINER

RIGGLEMAN, JASON PAUL

ART UNIT PAPER NUMBER

1746

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/748,301

Applicant(s)

LIM ET AL.

Examiner

Jason P. Riggleman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 11/21/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-17 is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/6/2006, 10/24/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species 1, Figure 10, claims 1-17, in the reply filed on 11/21/2006 is acknowledged. The traversal is on the ground(s) that examination would not pose a serious burden to the examiner. This is not found persuasive because In accordance with MPEP §803: "For purposes of the initial requirement, a serious burden on the examiner may be *prima facie* shown by appropriate explanation of separate classification, or separate status in the art, or a different field of search as defined in MPEP § 808.02. That *prima facie* showing may be rebutted by appropriate showings or evidence by the applicant." In the instant case, the Examiner has provided a *prima facie* showing of separate classification and different field of search as shown in the Restriction Requirement. What is deemed reasonable is determined on a case-by-case basis. When two patentably distinct inventions are claimed then two mutually exclusive searches are required which poses an unreasonable burden on the examiner in this case. Applicant's allegations of coextensive search and no "serious burden" include no appropriate showings or evidence and, therefore, are not persuasive. Accordingly, the restriction is considered proper in accordance with MPEP §803. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6-7 recites the limitation "the" in "inner wall". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7, 10-11 are rejected under 35 U.S.C. 102(b) as being unpatentable by Toshinari et al. (Japanese Patent 7039679).

6. Toshinari et al. teaches a washing machine comprising an outer tub 1, inner tub 11 disposed inside outer tub 1, lower balancer (22 and 17) at the lower part of the inner tub 11, and an upper balancer 12 at an upper part of the inner tub 11. The lower balancer 22 has a base plate 17 installed at a lower surface of the inner tub 11 and providing a space between the base plate 17 and the lower surface of the inner tub 11, Fig. 2. A plurality of partition walls 16 radially installed inside the base plate at intervals divide the filling space into a plurality of sections 18 and have a flow path 19 (notching section). A reinforcing rib 15b is formed inside the base plate 17 in a circumferential direction to divide the partition wall into an inner partition wall 15c and outer partition wall 15a. The inner partition wall 15c is disposed at an interval from an outer partition wall 15a or rib. The outer partition wall 15a is disposed at an interval from an inner partition wall 15c or rib. The flow path has a groove-form with a certain width and depth (from the notches which allow fluid flow). A cover (bottom of inner tub) is fixed to the

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lower surface of the inner tub and couples with the remaining parts of the lower balancer. A washing plate 5 is installed in the inner tub. A driving motor 3 is taught for driving the dewatering shaft and washing shaft.

7. In regards to claim 4, Toshinari et al. teaches a base plate 17, Fig. 3, which attaches to the hollow disc unit to form the lower balancer 22. The hollow disc unit has inner and outer walls extending from the inner and outer circumference of the hollow disc unit and fixed to the inner tub 11.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshinari et al. (Japanese Patent 7039679) and Koshiga (EPO Patent Application EP 0949374A1).

10. Toshinari et al. teaches a washing machine comprising an outer tub 1, inner tub 11 disposed inside outer tub 1, lower balancer (22 and 17) at the lower part of the inner tub 11, and an upper balancer 12 at an upper part of the inner tub 11. The lower balancer 22 has a base plate 17 installed at a lower surface of the inner tub 11 and providing a space between the base plate 17 and the lower surface of the inner tub 11, Fig. 2. A plurality of partition walls 16 are radially installed inside the base plate at intervals divide the filling space into a plurality of sections 18 and have a flow path 19

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(notching section). A reinforcing rib 15b is formed inside the base plate 17 in a circumferential direction to divide the partition wall into an inner partition wall and outer partition wall. The reinforcing rib 15b is disposed at an interval from both the outer partition wall and the inner partition wall. The flow path has a groove-form with a certain width and depth (from the notches which allow fluid flow). A cover (bottom of inner tub) is fixed to the lower surface of the inner tub and couples with the remaining parts of the lower balancer. A washing plate 5 is installed in the inner tub. A driving motor 3 is taught for driving the dewatering shaft and washing shaft.

11. Toshinara et al. does not teach a hollow dewatering shaft connected to the inner tub and a washing shaft received in the dewatering shaft and connected to the washing plate; however, the use of a hollow dewatering shaft co-axial and contained in the washing shaft is common in the art. One example is that of Koshiga. Koshiga teaches a hollow dewatering shaft 37 which is integrally connected to a rotatable an inner tub 34. A washing shaft 39 rotates the plate 35 (agitating blades). The washing shaft 39 is disposed coaxially within the hollow part of the dewatering shaft 37, paragraph [0023]. Koshiga teaches that this design is advantageous for allowing co-axial disposition of a reduction gear mechanism and the drive motor which allows for the center of gravity of the inner tub 34 and outer tub 33 and the center of rotation of the inner tub to be matching thus allowing reduction in the generation of an imbalance, paragraph [0018]. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Toshinari et al. with Koshiga to create a washing machine with multiple

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solutions such as a fluid ring and a co-axial shaft arrangement to prevent excessive vibration during an imbalance condition of the washing machine.

12. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshinari et al. (Japanese Patent 7039679) as applied to claim 4 above, and further in view of Vande Haar (US Patent No. 5735006).

13. In regards to claim 8, Toshinari et al. does not teach a washing machine where the disc unit of the base plate has a curved surface; however, Vande Haar teaches the use of a fluid ring 34 fixed to the bottom of a tub 26, Fig. 5. The bottom of the tub has a curved shape and the disc unit of the base plate (profile of the fluid ring) has a matching curved shape to allow fixing of the disc unit to the tub. The convex (curved) shape of the drum is conventional (Column 1, Lines 49-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Toshinari et al. with Vande Haar to create a lower balancer which can snugly attach to a tub with a curved bottom.

14. In regards to claim 9, Toshinari et al. does not teach a washing machine wherein the partition wall is formed to be tilted in the direction of the center of the base plate; however, Vande Haar teaches the use of a (base plate) fluid ring 34 fixed to the bottom of a tub 26, Fig. 5. The bottom of the tub has a curved shape and the disc unit of the base plate (profile of the fluid ring) has a matching curved shape to allow fixing of the disc unit to the tub. The convex (curved) shape of the drum is conventional (Column 1, Lines 49-55). The disc unit (fluid ring) is tilted in the direction of the center of the base plate, Fig. 5. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Toshinari et al. with Vande Haar to create a lower balancer

which can snugly attach to a tub with a curved bottom and would since Toshinari et al. has radial partition walls – these would in turn be tilted in the direction of the center of the base plate.

Allowable Subject Matter

15. Claims 15-17 allowed.

16. The following is an examiner's statement of reasons for allowance: The most relevant piece of prior art is Lim et al. (US Patent Application Publication No. US 2004/0031294) which meets all the limitations of claim 15 except the eccentricity of the inner tub with respect to the outer tub axis. The only other relevant piece of prior art which teaches eccentricity of the inner tub with respect to the outer tub axis was Bochan (US Patent No. 4328600); however, there is insufficient motivation found by the examiner to combine these two pieces of art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Geldhof (US Patent No. 2088551) and Ikeda (US Patent No. 4444027) both of which teach a washing machine utilizing an orbiting wash plate with a coaxial attachment to the washing shaft.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Riggleman whose telephone number is 571-272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason P Riggleman
Examiner
Art Unit 1746

JPR


MICHAEL BARR
SUPERVISORY PATENT EXAMINER